DEPARTMENT OF TRADE AND COMMERCE

Supply of Building Materials in Canada

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The Right Honourable C. D. Howe, M.P.,
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PREFACE

During the last three years Canada has been expanding and improving her plant, equipment, buildings and other capital facilities on a larger scale than at any time in the past. Yet these accomplishments have not been as great as Canadians would have liked to achieve because of materials shortages.

Looking forward in 1949, this report surveys the outlook for the production and supply of materials needed in the carrying out of the investment program that are or have been in shortest supply. A companion study released concurrently, *Private and Public Investment in Canada, Outlook 1949*, reports on the probable level of demand this year for new capital goods and for repair and maintenance. The two reports, together, provide information for an appraisal of the volume of investment and repair likely to be achieved in Canada during 1949.

Thirty building materials as well as primary iron and steel and lumber are covered in this report. Estimates of production are based upon a survey of manufacturers' intentions. If their intentions are realized supply should be substantially greater and more balanced than in 1948. Large production gains are expected for enamelled sanitary ware, heating equipment and cement which were most consistently short last year. The anticipated small improvement in the supply of iron and steel may also be reflected in domestic production of machinery and equipment.

The large gains in the production of building materials last year permitted full realization of investment and repair plans for 1948, although delays occurred because of local shortages. This year no significant change in the volume of investment and repairs is expected. As supplies of building materials are to increase, investment and repair plans for 1949 should encounter fewer obstacles than last year, and a further moderate increase in the productivity of the building industry should be within reach. Difficulties in procurement are expected to be limited mainly to iron and steel products, while for an increasing number of materials, demand is likely to determine supply.

Agencies of the Department of Trade and Commerce that contributed to this report are, the Dominion Bureau of Statistics, the Co-ordinator of Building Materials and the Steel and Timber Controllers. The report was prepared by Mr. Martin Hollinger, assisted by Mr. T. R. Vout, of the Economic Research and Development Branch.

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Canada is in the process of accomplishing a record volume of investment with unprecedented speed.[1] Each year since the end of the war, industry, institutions, housebuilders and governments have increased their demands for capital goods for expansion, replacement and modernization as well as for materials and parts for maintenance and repair. The pressure to increase the production of the needed raw materials and manufactured products has never been so great.

Back of these insistent demands are the under-replacement and under-maintenance of plant and equipment during the depressed thirties and the war—a period of over fifteen years—the neglect of modernization and of expansion and development which the increasing physical needs of a growing population and latterly high levels of income and employment have made necessary. Thus, presently high levels of investment while making possible the achievement of full employment are at the same time establishing the productive facilities which are needed to provide for high and rising standards of living for Canadians.

Carrying out so great an investment program required a vast mobilization of Canada's resources of labour and plant, and a meshing of the output of many industries, to name only a few, machinery, basic and building materials and construction.[2] The machinery and raw materials industries, greatly expanded during the war, came out of the conflict operating at relatively full capacity. The construction industry was in a less favourable position having lost much of its labour during the war and being hampered in expansion by the length of time required for training large numbers of tradesmen. Nevertheless higher wage rates, improved training facilities and immigration contributed to a rapid increase in the supply of labour in this industry.

TABLE 1.—EMPLOYMENT AND CAPITAL EXPENDITURES IN THE BUILDING MATERIALS AND CONSTRUCTION INDUSTRIES, CANADA, 1945-1948.

Year	Building Materials Industry		Construction Industry	
	Number Employed [1] (thousands)	Capital Expenditures (millions of dollars)	Number Employed (thousands)	Capital Expenditures (millions of dollars)
1945	— [2]	11	171	17
1946	84	16	227	21
1947	98	28	252	32
1948[3]	105	32	289	48

[1] Employment reported by firms with 15 or more employees.
[2] Not available
[3] Preliminary

The impact of the investment boom was perhaps greatest on the building materials industries. This group of industries, in many cases carried over the

[1] *Private and Public Investment in Canada, Outlook 1949*, (Department of Trade and Commerce, Ottawa, February, 1949); for previous years, *Outlook 1948*, *Outlook 1947* (Department of Reconstruction and Supply, Ottawa, March, 1948 and March, 1947).

[2] A comprehensive study is made in *Investment and Inflation With Special Reference to the Immediate Post-War Period, Canada, 1945-1948*, (Department of Trade and Commerce, Ottawa, February 1949).

general heritage of the depressed prewar years. Being most closely associated with the construction industry the effect of the depression was particularly severe. During the war years there was comparatively little gain from the general expansion and readjustment of plant, labour force, wages and prices, as these industries were relatively less important in the latter years of the conflict. Since the end of the war the building materials industries in many instances had to contend with materials and labour shortages, run down plant, inadequate capacity, relatively low wage rates and prices, etc. At the same time, there was the genuine hesitation to expand capacity greatly in an industry which had always experienced such wide fluctuations in the demand for its products. If the mobilization of an adequate supply of labour was relatively easy to accomplish, because of the comparatively large proportion of semi-skilled workers needed, there was the sheer physical effort and time required for bringing into operation the plant capacity to increase greatly the supply of building materials.

TABLE 2.—PRODUCTION OF SELECTED MATERIALS, CANADA, 1939, 1945 AND 1948

Material	Unit	Production		
		1939	1945	1948(1)
Lumber	Million M. Feet	4·0	4·5	5·2
Pig Iron	Million Net Tons	0·9	1·8	2·1
Cement	Million Barrels	5·7	7·8	14·0
Gypsum Wallboard	Million Square Feet	78·2	134·0	238·5
Cast Iron Soil Pipe and Fittings	Thousand Tons	16·5	20·8	45·7
Bath Tubs	Thousand Tubs	42·4(2)	56·3(2)	102·1
Furnaces—Warm-air and Heating Boilers	Thousand Furnaces	39·6	48·7	74·5

(1) Preliminary
(2) Estimated

The outstanding accomplishment of the building materials and related raw materials industries has been reflected in the gradually improving supply position, despite the growing volume of investment since the end of the war. Each year production has been expanded greatly and for most materials the level reached last year greatly exceeds wartime or prewar peaks.(1) As a result fewer investment projects have been held up or delayed because of building material shortages and the output of these materials, as well as machinery and equipment, has improved with each increase in the supply of raw materials, notably iron and steel.

Today the supply position is such that all investment projects planned for 1949 by industry, governments and housebuilders, etc. should be carried out with comparatively few supply difficulties. Critical shortages are few, although supplies in most cases are still hard pressed to meet up with demands. The most serious of these shortages continues in building materials made of iron and steel, pipe and tube, nails, enamelled sanitary ware and cement and gypsum products.

Definitions and Coverage

This year the report deals with the same building materials that were covered in Outlook 1948.(2) The thirty building materials which enter directly into new construction or into the repair and maintenance of buildings and other structures, dealt with fall into the following groups; cement and cement products (3 items), clay products (4 items), rock wool products (2 items), gypsum products (3 items), roofing products (2 items), plumbing supplies (3 items),

(1) See Section IV, Table 7.

(2) Surveys for two previous years have been published—*Production of Basic and Building Materials in Canada, Outlook 1947, and Outlook 1948*. (Department of Reconstruction and Supply, Ottawa, March 1947 and March 1948). These reports are referred to as *Outlook 1947* and *Outlook 1948*.

enamelled sanitary ware (3 items), heating equipment (4 items), other iron and steel products (2 items) and miscellaneous building materials (4 items). In addition, primary iron and steel and lumber are covered since the supply of these materials is of importance in construction and in the manufacture of building materials as well as of machinery and equipment.[1]

It should be borne in mind that this report is only concerned with an overall appraisal of the Canadian production and supply position and prospects. No account is taken of regional variations. Data are obtained from current official statistical sources or from special surveys. All figures for 1948, the latest year, are preliminary.[2] Forecasts for 1949 represent producers' intentions as seen by them a year in advance. In past years these figures usually have been found to be somewhat conservative. No allowance is made in these forecasts for unexpected interruptions in production which may occur due to plant breakdowns, strikes, etc. In connection with forecasts of domestic supply it should be borne in mind that Canada is not a large exporter or importer of manufactured building materials and supplies.

(1) As the domestic supply of most raw materials is on the whole adequate to meet the needs of the investment program planned for 1949, this report is confined to iron and steel and lumber. Outlook 1948 dealt with in addition, asbestos, gypsum, coal, coke and copper.

(2) See Appendix, *Sources and Explanatory Notes.*

SECTION II.—PRODUCTION AND SUPPLY OF BUILDING MATERIALS IN 1948

During 1948 there was a marked improvement in the availability of building materials. Supplies were greater and, on the whole, more balanced. The flow of materials from producer to user was more rapid and smooth than in 1947. It is estimated that the average house took seven months to build in 1948 compared with eight months in the previous year.

The domestic production of nearly all materials increased considerably, and in some cases, much more than was expected at the beginning of the year. Most important were the gains in heating and plumbing supplies, enamelled sanitary ware, cement and gypsum products, which were especially short during 1947. This was largely attributable to increased supplies of raw materials. In several cases production was either lower or did not increase to the extent of production capacity, e.g., certain roofing and insulating products. This would appear to show that in some cases supply has caught up with demand. Imports of building materials were, with a few notable exceptions, lower in 1948 than in the previous year. However, the reduced supplies from abroad were more than offset by greater domestic production.

The large increase in the supply of iron and steel last year was of special importance in permitting the carrying out of a greater investment program. Domestic production of pig iron increased from somewhat less than 2 million net tons to more than 2·1 million net tons, that is, by about 8 per cent. The domestic production of steel ingots and castings increased from over 2·9 million net tons in 1947 to over 3·2 million net tons in 1948, that is, by about 9 per cent.

The improvement in the overall domestic supply of iron and steel was almost entirely due to greater domestic production, since imports were about 4 per cent higher in 1948 than they were in 1947. Early last year it was expected that imports of steel mill products would decrease. Since Canada is heavily dependent on imports, mainly from the United States, the Canadian supply position would have been greatly affected. In the United States the steel supply position was tighter during the first nine months of the year than in the previous year, because of the large and growing demands for foreign aid and military programs. For this reason Canada voluntarily agreed to accept a substantial reduction of imports from the United States. However, the supply position in that country eased during the closing months of the year, and as a result, Canada's imports were only slightly lower. On the other hand, imports from other countries increased.

The Canadian iron and steel industry's performance during 1948 was remarkable in view of the handicaps with which it was confronted. The production of pig iron was still hampered in the main, by lower grades of ore and coal, and to some extent, by the need for furnace repairs long deferred because of the war. Steel production was limited largely by the shortage of scrap. However, these handicaps were overcome by the longer and improved operation of both blast furnaces and open hearth furnaces. A number of steps taken by the Government contributed to increased production of steel ingots and rolling mill prod-

ucts. The industry was aided in the procurement of scrap from abroad and where necessary a subsidy was paid.[1] The Government also directed and assisted the movement of a large tonnage of semi-finished steel from steel mills with insufficient finishing capacity to those capable of finishing this steel into the needed mill forms. This contributed to increased production of steel plates, rods and bars.

The improvement in the Canadian iron and steel position is reflected in the supply and distribution figures. The foundry industry which accounts for most of the production of building materials made of iron, was able to obtain about the same amount of pig iron from domestic production as it had in the previous year. At the same time, the removal of price controls on iron scrap in the latter half of 1947, provided an increased flow of this material. As for steel forms, mill shipments to the building construction industry, including public works and utilities, increased by over 6 per cent. There was also a significant increase in the domestic supply of many of the steel mill forms that were tightest in the previous year. The supply of structurals increased by about 2 per cent due to increased domestic production. The supply of plates was 4 per cent greater, also due to an increase in domestic production of more than 16 per cent which offset lower imports. The supply of pipe and tubes was nearly 25 per cent greater, although imports of skelp[2], dropped slightly. Galvanized sheet supplies were about 10 per cent greater, despite the small drop in imports; and for wire rods, supplies were about 7 per cent greater than in 1947.

The domestic supply of lumber also improved noticeably in 1948. Although the position was on the whole far from easy, it was less difficult to procure special types and qualities than in the previous year, e.g., flooring, veneer and plywood. Exports of lumber in 1948 were lower, and as a result, production at 5·2 billion board feet was slightly below the level of the previous year. Production decreased in the Maritimes because of a reduction in the volume called for by United Kingdom contracts. This was offset in part by greater production in British Columbia, largely for the United States market, and by increased domestic consumption. The redirection of Canada's lumber exports to the United States contributed to the easing of Canada's exchange problem. An improvement in lumber inventories at the distribution level was also apparent.

Building Materials

The large gains in the output of building materials during 1948 were little short of spectacular. Production increases were achieved in 27 of the 30 building materials covered in this report; and only in three was production lower than in the previous year. Production intentions of manufacturers, as provided early in the year, were more than realized for 16 building materials; for another 9 they were substantially achieved; and in five cases production was appreciably below the forecast,[3] demand having determined the level of output for three.

For 12 building materials production gains over 1947 were 20 per cent or more; the most notable illustrations in this category were concrete brick and building block, vitrified flue linings and sewer pipe, gypsum lath, cast iron soil and water pipe and fittings, bath tubs and wash basins and builders' hardware. For another 10 materials, increases in production ranged from 10 per cent to 20

(1) Imports of scrap were subsidized to a maximum of $10 a ton.
(2) Skelp is used for the manufacture of steel pipe and tubes.
(3) See Section IV, Table 6.

per cent; the most notable of these were cement, gypsum wall board and plaster, steel pipe and fittings, sinks, wire nails and paints. For building brick, structural tile, furnaces and rigid insulating boards the increases were more modest. There was a small decrease in the production of asphalt shingles and cast iron radiators; and a sharp drop in smooth and mineral surfaced rolls.

TABLE 3.—PRODUCTION OF SELECTED BUILDING MATERIALS, CANADA, 1947 AND 1948

Material	Unit	Production 1947	Production 1948[1]	Percentage Change From 1947
CEMENT AND CEMENT PRODUCTS—				
Cement	Million Barrels	12·2	14·0	+15
Concrete Brick and Building Blocks	Million Pieces	51·9[2]	62·9	+21
Cement Pipe and Tile[3]	Thousand Tons	134·7[2]	159·3	+18
CLAY PRODUCTS—				
Building Brick (incl. Sand-Lime Brick)	Million Bricks	334·4[2]	345·6	+ 3
Vitrified Flue Linings	Million Linear Feet	1·0	1·2	+20
Vitrified Sewer Pipe	Million Linear Feet	4·0	5·1	+28
Structural Tile	Thousand Tons	150·2	157·3	+ 5
ROCK WOOL PRODUCTS—				
Rock Wool Batts (All sizes)	Million Square Feet	82·8	93·5	+13
Bulk Rock Wool (Granulated and Loose)	Million Cubic Feet	9·9	12·0	+21
GYPSUM PRODUCTS—				
Gypsum Wallboard	Million Square Feet	213·7	238·5	+12
Gypsum Lath	Million Square Feet	111·1	153·9	+39
Gypsum Hardwall Plaster	Thousand Tons	119·7	143·0	+19
ROOFING PRODUCTS—				
Asphalt Shingles (All weights)	Million Squares	2·1	2·0	− 5
Smooth and Mineral Surfaced Rolls	Million Squares	3·4	2·5	−26
PLUMBING SUPPLIES—				
Cast Iron Soil Pipe and Fittings	Thousand Tons	32·6	45·7	+40
Cast Iron Water Pipe and Fittings	Thousand Tons	77·7	93·1	+20
Steel Pipe and Fittings	Thousand Tons	118·0	133·5	+13
ENAMELLED SANITARY WARE—				
Bath Tubs	Thousand Tubs	81·1	102·1	+26
Sinks	Thousand Sinks	120·7	139·6	+16
Wash Basins	Thousand Basins	91·7	109·7	+20
HEATING EQUIPMENT—				
Furnaces—Warm Air and Heating Boilers	Thousand Furnaces	71·1	74·5	+ 5
Electric Water Heaters	Thousand Heaters	117·5	119·5	+ 2
Hot Water Storage Tanks (Range Boilers)	Thousand Tanks	163·7	180·6	+10
Cast Iron Radiators	Million Square Feet	9·0	8·6	− 4
OTHER IRON AND STEEL PRODUCTS—				
Wire Nails and Spikes	Million Kegs	1·5	1·7	+13
Builders' Hardware	Million Dollars	6·7[2]	8·2	+22
MISCELLANEOUS PRODUCTS—				
Common, Colourless Window Glass[4]	Million Square Feet	70·2	96·4	+37
Paints, Varnishes and Lacquers	Million Dollars	70·9	82·3[5]	+16
Non-Metallic Sheathed Cable	Million Linear Feet	67·0	81·1	+21
Rigid Insulating Boards	Million Square Feet[6]	203·1	220·7	+ 9

(1) Preliminary.
(2) Estimated (For coverage see Appendix).
(3) Includes drain, sewer and water pipe and culvert tile.
(4) Imports.
(5) Factory sales.
(6) ½" Basis.

The main reasons for these large increases in production, which, incidentally, were greater percentagewise in many cases than in 1947, may be summarized briefly as follows: First, the continuation of efforts made in previous years to obtain greater production from existing plant, largely a matter of time for better organization of plant and labour; second, further expansion of plant facilities and greater production from new facilities which came into operation late in 1947, (e.g., cast iron soil pipe and fittings, bath tubs, sinks and wash basins, cement); third, temporary shifting of facilities and inventories of raw materials to the production of items in particularly short supply (e.g., from other products to bath tubs, sinks, and wash basins, from miscellaneous products to warm-air furnaces); fourth, production incentives provided by the Government (as for, cast iron soil pipe, and cast iron enamelled sanitary ware); and finally, Government aid in arranging for the channeling of at least minimum supplies of paper and foundry iron and steel, to building materials producers (as for, gypsum wall board and lath, cast iron soil and water pipe, sanitary ware, nails, and warm-air furnaces).

The most serious continuing shortages during 1948 were in products made from iron and steel, that is, from foundry and scrap iron, steel wire, steel sheet and skelp. The main building materials involved were, cast iron water pipe and fittings, enamelled sanitary ware, warm-air furnaces, nails, steel pipe, tubes and fittings, certain types of builders' hardware (i.e., butts, hinges and door lock sets) and of some types of electrical wiring devices, (i.e., switches, outlet boxes, receptacles, standard galvanized conduit, etc.). Other notable shortages were, cement, cement pipe, building brick, vitrified clay sewer pipe and flue linings, gypsum wallboard and lath. On the other hand, supplies of asphalt shingles, electric water heaters and rigid insulating boards were generally adequate, although shortages of some types were experienced. Supply was relatively abundant for the following; rock wool and asphalt products, colourless window glass and paints, varnishes and lacquers.

TABLE 4.—DOMESTIC SUPPLY OF SELECTED BUILDING MATERIALS, CANADA, 1947 AND 1948

Material	Unit	Domestic Supply(1)		Per Cent Change from 1947
		1947	1948	
Cement	Million Barrels	13·4	15·1	+13
Building Brick (Clay and Sand Lime)	Million Bricks	339·1	349·0	+ 3
Rock Wool Batts (all sizes)	Million Square Feet	88·5	93·6	+ 6
Gypsum Hardwall Plaster	Thousand Tons	128·3	152·2	+19
Cast Iron Radiators	Million Square Feet	9·0	8·6	− 4
Wire Nails and Spikes	Million Kegs	1·6	1·8	+13
Common, Colourless Window Glass	Million Square Feet	70·1	96·3	+37
Paints, Varnishes and Lacquers	Million Dollars	77·0	90·6	+18
Rigid Insulating Boards	Million Square Feet(2)	191·2	198·9	+ 4

(1) Production plus imports minus exports.
(2) ½" Basis.

The domestic supply of most building materials for which data are available was not greatly affected by exports or imports(1). However, in a number of cases imports contributed to the alleviation of serious shortages, e.g., cement, gypsum lath, sanitary ware, wire nails and butts. Where necessary, emergency exchange import controls were relaxed so that needed supplies could be obtained from abroad. As for window glass, nearly all of Canada's supply is obtained from abroad. Compared with 1947, these imports were up 37 per cent and all demands were satisfied. On the other hand, exports of building materials were few and small in amount.

(1) See Section IV, Table 8.

SECTION III.—OUTLOOK FOR THE PRODUCTION OF BUILDING MATERIALS IN 1949

Current surveys of private and public investment, repair and maintenance intentions and of the production intentions of basic and building materials producers, suggest that supply-demand relationships for these materials should improve further during 1949. On the one hand, the overall volume of demand is not expected to change significantly, although a small increase is expected in construction. On the other hand, substantial gains should be made in the production of materials. The result should be a narrowing of serious shortages to fewer products than in 1948, and a better distributed flow of materials to users. Full realization of investment plans during 1949 should be possible.[1]

The most notable shortage during 1949, carried over from last year, is expected to be in building materials made of iron and steel. This general bottleneck in industrial production in the past few years should be widened somewhat as the year progresses. The effects of the shortage of iron and steel on the building materials industry, as long as it continues, should be mitigated by the arrangements made by the Government to assure that at least minimum supplies reach these manufacturers. Cement, clay and gypsum products are also expected to remain in short supply.

Present prospects are for a further increase in the production of primary iron and steel, though not to the same extent as last year. The domestic supply of lumber should also improve further for special types and qualities. For other building materials, increases in production are expected to follow last year's pattern, but for most of these the gains are likely to be somewhat smaller. Of special importance are the large increases in the production of enamelled sanitary ware and cement foreseen at the present time.

At the moment few additions to plant capacity are being made, though some extensions and further improvements in the organization of output should contribute to greater production. In several cases greater production should be realized from new facilities which operated only during a part of last year. Imports of building materials may be higher this year because of the relaxation of emergency exchange import controls and the improved foreign supply position for some materials. Coming into 1949, there appeared to be no significant changes in inventories of building materials. In many cases stocks at the producer level represent materials awaiting shipment.

The expected shift in the volume of investment and repairs from machinery and equipment to construction during 1949 points to an increase in the demand for building materials. For all types of construction in Canada, dollar expenditures are likely to be up about 10 per cent, while for machinery and equipment the expected increase is about 2 per cent. Thus, allowing for price increases, it appears that only in the case of construction will there be a significant gain in volume compared with last year. The main increases are expected for utility, institutional and housing construction with a partly offsetting drop in volume in manufacturing. These changes in the pattern of demand appear to conform

(1) Investment, repair and maintenance intentions for 1949, and the possibility of their realization are discussed in *Private and Public Investment in Canada, Outlook 1949*.

to the pattern of increases in production and supply expected in building materials.

Prolonged work stoppages or delays in the receipt of machinery or raw materials during 1949 are not expected to prevent the realization of the production intentions of building materials manufacturers as shown in this report. Work stoppages occasioned by labour-management disputes are perhaps the most significant, but they did not materially effect the achievement of production targets last year. Underlying most of these disputes was the sharp and continuing increase in the cost of living. However, late in 1948 the rate of increase was much smaller. While further price increases may occur this year, if they do, they are not likely to be as large as they were last year.

Primary iron and steel may continue to be the most difficult supply problem during 1949. At present it seems that domestic supplies will be somewhat larger than last year and at least as large. Domestic production of iron and steel is expected to increase. In the case of pig iron a smaller amount of production is expected to be lost because of furnace repairs than last year. The continuation of subsidies on scrap, as well as Government aid in procurement abroad should increase Canada's scrap supplies during 1949, and as a result, permit an increase in steel production. The new cold rolled sheet and strip mill at Hamilton which came into production late last year will permit a more diversified output of rolling mill products.

Imports of steel are expected to be about as large as last year, with perhaps greater supplies materializing in the latter half of 1949. Any reduction in imports from the United States would likely be offset by increased imports from other countries. Imports of structural steel, plate, pipe and tubes and skelp, wire and galvanized sheet are expected to be the most difficult to obtain and these mill products are of particular importance to the building materials industries.

The domestic supply of lumber is expected to improve further in 1949, particularly for special types and grades still difficult to procure. However, production may decrease slightly again to about 5·1 billion board feet, due to lower and more selective demands from abroad, mainly the United States. Foreign exchange difficulties of other countries still hamper increased exports to them. On the whole, foreign demands are expected to remain about as firm as last year and particularly on prime quality planks and boards.

Building Materials

Increased production of twenty-one of the thirty building materials covered here is anticipated in 1949. Only two are to increase by 20 per cent or more, electric water heaters and rock wool batts. Another 9 are to increase between 10 per cent and 20 per cent, namely, cement, concrete brick and blocks, bulk rock wool, asphalt shingles, bath tubs, sinks and wash basins, furnaces and rigid insulating boards. For another 4 materials production increases ranging from 5 per cent to 10 per cent are indicated. These materials are structural tile, gypsum lath, cast iron soil pipe and cast iron radiators. The production of hot water storage tanks is expected to decrease by as much as 10 per cent due to the sheet steel supply position. The output of smooth and mineral surfaced rolls for roofing may fall by about 8 per cent depending upon demand; and supplies of window glass largely imported, are expected to decrease by about 17 per cent for the same reason.

TABLE 5.—PRODUCTION AND PRODUCTION INTENTIONS FOR SELECTED BUILDING MATERIALS, CANADA, 1948 AND 1949.

Material	Unit	Production 1948(1)	Production Intentions 1949	Percentage Change from 1948
CEMENT AND CEMENT PRODUCTS—				
Cement	Million Barrels	14·0	15·4	+10
Concrete Brick and Building Blocks	Million Pieces	62·9	72·5	+15
Cement Pipe and Tile(2)	Thousand Tons	159·3	162·5	+ 2
CLAY PRODUCTS—				
Building Brick (incl. Sand-Lime Brick)	Million Bricks	345·6	360·9	+ 4
Vitrified Flue Linings	Million Linear Feet	1·2	1·2	0
Vitrified Sewer Pipe	Million Linear Feet	5·1	5·1	0
Structural Tile	Thousand Tons	157·3	167·5	+ 6
ROCK WOOL PRODUCTS—				
Rock Wool Batts (all sizes)	Million Square Feet	93·5	118·6	+27
Bulk Rock Wool (granulated and loose)	Million Cubic Feet	12·0	13·3	+11
GYPSUM PRODUCTS—				
Gypsum Wallboard	Million Square Feet	238·5	238·5	0
Gypsum Lath	Million Square Feet	153·9	167·4	+ 9
Gypsum Hardwall Plaster	Thousand Tons	143·0	145·0	+ 1
ROOFING PRODUCTS—				
Asphalt Shingles (all weights)	Million Squares	2·0	2·2	+10
Smooth and Mineral Surfaced Rolls	Million Squares	2·5	2·3	− 8
PLUMBING SUPPLIES—				
Cast Iron Soil Pipe and Fittings	Thousand Tons	45·7	48·8	+ 7
Cast Iron Water Pipe and Fittings	Thousand Tons	93·1	93·1	0
Steel Pipe and Fittings	Thousand Tons	133·5	133·5	0
ENAMELLED SANITARY WARE—				
Bath Tubs	Thousand Tubs	102·1	118·7	+16
Sinks	Thousand Sinks	139·6	164·9	+18
Wash Basins	Thousand Basins	109·7	124·7	+14
HEATING EQUIPMENT—				
Furnaces—Warm Air and Heating Boilers	Thousand Furnaces	74·5	88·0	+18
Electric Water Heaters	Thousand Heaters	119·5	147·2	+23
Hot Water Storage Tanks (Range Boilers)	Thousand Tanks	180·6	162·4	−10
Cast Iron Radiators	Million Square Feet	8·6	9·3	+ 8
OTHER IRON AND STEEL PRODUCTS—				
Wire Nails and Spikes	Million Kegs	1·7	1·7	0
Builders' Hardware	Million Dollars	8·2	8·4	+ 2
MISCELLANEOUS PRODUCTS—				
Common, Colourless Window Glass(3)	Million Square Feet	96·4	80·0	−17
Paints, Varnishes and Lacquers	Million Dollars	82·3(4)	83·2	+ 1
Non-Metallic Sheathed Cable	Million Linear Feet	81·1	82·0	+ 1
Rigid Insulating Boards	Million Square Feet(5)	220·7	248·0	+12

(1) Preliminary
(2) Includes drain, sewer and water pipe and culvert tile.
(3) Imports.
(4) Factory sales
(5) ½" Basis.

The most significant increases in the production of building materials are expected to occur in certain iron and steel products in short supply last year, e.g., bath tubs, sinks and wash basins, furnaces and radiators. Even if production intentions for these materials are realized, demand is still likely to continue to exceed supply. Shortages of other materials such as steel pipe and fittings, and nails are expected to continue with no significant increase in output during 1949.

Generally, manufacturers of building materials using pig iron expect to increase their output, whereas for those using rolled steel products, the increases forecast are few and modest. There are a number of reasons for this. First, deliveries of foundry iron will probably be continued at last year's level to the producers in question or increased if the expected gain in the production of pig iron is achieved. Second, in some cases, such as enamelled sanitary ware, pressed steel forms are supplementing supplies of the more usual cast iron forms. For both of these types of partly fabricated materials, import bans have been replaced by quotas which are to provide for at least half of the production increases expected. Third, in the case of warm-air furnaces, arrangements have also been made by the Government to channel additional supplies of sheet for both furnace production and installation for the first half of 1949, at least. Finally, the production of steel pipe and fittings and nails may be limited by imports of materials used in their production, skelp and wire respectively. However, the pattern of iron and steel building materials production may be varied during the year as supply and demand conditions warrant. For example, this year again the production of fence and barbed wire is to be reduced for a period, when nails are most needed, so that the steel wire thus conserved can be diverted to nail production.

Important building material imports which contribute to domestic supplies are structural steel, sanitary ware, heating equipment, hardwood flooring, cement, nails and window glass. Imports of the last three were not restricted last year, and this year, controls have been relaxed on sanitary ware and heating equipment. Imports of structural steel were limited during the last quarter of 1948 by import quotas which are being continued for the present. Hardwood flooring is at present still under import ban, but the domestically produced product should be available in adequate supply this year.

SECTION IV—REFERENCE TABLES

TABLE 6.—PRODUCTION INTENTIONS AND REALIZATION FOR SELECTED BUILDING MATERIALS, CANADA, 1948

Material	Unit	Production Intentions	Realization[1]	Percentage Realization[1] Exceeded or Fell Short of Intentions
CEMENT AND CEMENT PRODUCTS—				
Cement	Million Barrels	13·3	14·0	+ 5
Concrete Brick and Building Blocks	Million Pieces	52·4	62·9	+20
Cement Pipe and Tile[2]	Thousand Tons	138·4	159·3	+15
CLAY PRODUCTS—				
Building Brick (incl. Sand-Lime Brick)	Million Bricks	343·5	345·6	+ 1
Vitrified Flue Lining	Million Linear Feet	1·1	1·2	+ 9
Vitrified Sewer Pipe	Million Linear Feet	4·4	5·1	+16
Structural Tile	Thousand Tons	177·7	157·3	−11
ROCK WOOL PRODUCTS—				
Rock Wool Batts (all sizes)	Million Square Feet	103·4	93·5	−10
Bulk Rock Wool (granulated and loose)	Million Cubic Feet	11·7	12·0	+ 3
GYPSUM PRODUCTS—				
Gypsum Wallboard	Million Square Feet	247·4	238·5	− 4
Gypsum Lath	Million Square Feet	139·6	153·9	+10
Gypsum Hardwall Plaster	Thousand Tons	148·0	143·0	− 3
ROOFING PRODUCTS—				
Asphalt Shingles (all weights)	Million Squares	2·2	2·0	− 9
Smooth and Mineral Surfaced Rolls	Million Squares	3·4	2·5	−26
PLUMBING SUPPLIES—				
Cast Iron Soil Pipe and Fittings	Thousand Tons	35·8[3]	45·7	+28
Cast Iron Water Pipe and Fittings	Thousand Tons	63·5[3]	93·1	+47
Steel Pipe and Fittings	Thousand Tons	139·0[4]	133·5	− 4
ENAMELLED SANITARY WARE—				
Bath Tubs	Thousand Tubs	113·5[3]	102·1	−10
Sinks	Thousand Sinks	139·0[3]	139·6	0
Wash Basins	Thousand Basins	99·8	109·7	+10
HEATING EQUIPMENT—				
Furnaces—Warm Air and Heating Boilers	Thousand Furnaces	77·0	74·5	− 3
Electric Water Heaters	Thousand Heaters	118·0	119·5	+ 1
Hot Water Storage Tanks (Range Boilers)	Thousand Tanks	176·4	180·6	+ 2
Cast Iron Radiators	Million Square Feet	7·8[3]	8·6	+10
OTHER IRON AND STEEL PRODUCTS—				
Wire Nails and Spikes	Million Kegs	1·6	1·7	+ 6
Builders' Hardware	Million Dollars	7·2[5]	8·2	+14
MISCELLANEOUS PRODUCTS—				
Common, Colourless Window Glass[6]	Million Square Feet	71·5[3]	96·4	+35
Paints, Varnishes and Lacquers	Million Dollars	77·3	82·3[7]	+ 6
Non-Metallic Sheathed Cable	Million Linear Feet	74·8	81·1	+ 8
Rigid Insulating Boards	Million Square Feet[8]	226·7	220·7	− 3

(1) Preliminary.
(2) Includes drain, sewer and water pipe and culvert tile.
(3) Midpoint of range.
(4) Revised to include seamless steel tubing.
(5) Revised on a full coverage basis.
(6) Imports.
(7) Factory sales.
(8) ½" Basis.

TABLE 7.—PRODUCTION OF SELECTED BUILDING MATERIALS, CANADA, FOR YEARS SPECIFIED

Material	Unit	Pre-War Peak Production[1]		1939	War-Peak Production[2]		Post-War Production				
		Year	Volume		Year	Volume	1945	1946	1947	1948[3]	1949[4]
Cement and Cement Products—											
Cement	Million Barrels	1929	12·3	5·7	1942	8·6	7·8	10·7	12·2	14·0	15·4
Concrete Brick & Building Blocks	Million Pieces	—	—	—	—	—	—	49·4	51·9[5]	62·9	72·5
Cement Pipe and Tile[6]	Thousand Tons	—	—	—	—	—	—	94·8	134·7	159·3	162·5
Clay Products—											
Building Brick (incl. Sand-Lime Brick)	Million Bricks	1929	537·0[7]	176·8[7]	1941	228·1[7]	209·0[5]	305·7[5]	334·4[5]	345·6	360·9
Vitrified Flue Linings	Million Lin. Ft.	—	—	—	—	—	—	0·9	1·0	1·2	1·2
Vitrified Sewer Pipe	Million Lin. Ft.	—	—	—	—	—	—	3·1	4·0	5·1	5·1
Structural Tile	Thousand Tons	1929	221·8[7]	86·7[7]	1941	117·5[7]	90·2	134·4	150·2	157·3	167·5
Rock Wool Products—											
Rock Wool Batts (all sizes)	Million Sq. Ft.	1939	9·1	9·1	1943	41·1	34·4	54·8	82·8	93·5	118·6
Bulk Rock Wool (Granulated and loose)	Million Cu. Ft.	1939	1·8	1·8	1944	4·6	5·4	10·1	9·9	12·0	13·3
Gypsum Products—											
Gypsum Wallboard	Million Sq. Ft.	1939	78·2	78·2	1943	192·2	134·0	203·4	213·7	238·5	238·5
Gypsum Lath	Million Sq. Ft.	—	—	—	—	—	59·9	75·0	111·1	153·9	167·4
Gypsum Hardwall Plaster	Thousand Tons	1939	69·9	69·9	1941	80·2	67·1	97·3	119·7	143·0	145·0
Roofing Products—											
Asphalt Shingles (all weights)	Million Squares	1939	0·5	0·5	1944	1·1	1·4	2·0	2·1	2·0	2·2
Smooth and Mineral Surfaced Rolls	Million Squares	1939	1·3	1·3	1944	2·2	2·4	3·0	3·4	2·5	2·3
Plumbing Supplies—											
Cast Iron Soil Pipe and Fittings	Thousand Tons	1929	21·4	16·5	1941	26·4	20·8	24·5	32·6	45·7	48·8
Cast Iron Water Pipe and Fittings	Thousand Tons	1931	80·6	33·1	1942	50·0	45·9	65·2	77·7	93·1	93·1
Steel Pipe and Fittings	Thousand Tons	1929	137·1	90·5	1941	158·4	141·4	120·6	118·0	133·5	133·5
Enamelled Sanitary Ware—											
Bath Tubs	Thousand Tubs	—	—	42·4[5]	1942	67·0[5]	56·3[5]	57·9	81·1	102·1	118·7
Sinks	Thousand Sinks	—	—	—	—	—	—	103·7	120·7	139·6	164·9
Wash Basins	Thousand Basins	—	—	—	—	—	—	78·6	91·7	109·7	124·7
Heating Equipment—											
Furnaces—Warm Air and Heating Boilers	Thousand Furnaces	1929	49·3	39·6	1941	44·4	48·7	60·5	71·1	74·5	88·0
Electric Water Heaters	Thousand Heaters	1937	24·2	23·0	1941	36·5	57·2	76·6	117·5	119·5	147·2
Hot Water Storage Tanks (Range Boilers)	Thousand Tanks	1939	96·8	96·8	1940	98·6	134·7	131·8	163·7	180·6	162·4
Cast Iron Radiators	Million Sq. Ft.	1937	5·0	5·0	1944	7·0	7·2	8·0	9·0	8·6	9·3
Other Iron and Steel Products —											
Wire Nails and Spikes	Million Kegs	1939	1·3	1·3	1944	1·3	1·4	1·2	1·5	1·7	1·7
Builders' Hardware	Million Dollars	1929	3·8	2·5	1941	4·3	4·3	5·6	6·7[5]	8·2	8·4
Miscellaneous Products—											
Common, Colourless Window Glass[8]	Million Sq. Ft.	1929	51·4	48·8	1944	45·3	39·8	43·7	70·2	96·4	80·0
Paints, Varnishes and Lacquers	Million Dollars	1929	27·1	25·9	1944	49·1	48·4	56·7	70·9	82·3[8]	83·2
Non-Metallic Sheathed Cable	Million Lin. Ft.	—	—	—	—	—	—	45·4	67·0	81·1	82·0
Rigid Insulating Boards	Million Sq. Ft[9]	1937	107·1	98·1	1941	169·4	164·7	161·8	203·1	220·7	248·0

(1) Back to 1919 where figures are available.
(2) Covering full war years 1940-1944.
(3) Preliminary.
(4) Production intentions at first of year.
(5) Estimated (For coverage see Appendix).
(6) Estimates for drain, sewer and water pipe and culvert tile.
(7) Factory sales.
(8) Imports.
(9) ½" Basis.

TABLE 8.—EXPORTS AND IMPORTS OF SELECTED BUILDING MATERIALS, CANADA, 1946, 1947 AND 1948

Material[1]	Unit	Exports			Imports		
		1946	1947	1948[2]	1946	1947	1948[2]
Cement	Million Barrels	0·1	0·1	0·1	0·4	1·2	1·1
Building Brick (Clay and Sand-Lime)	Million Bricks	6·1	4·2	4·9	1·1	8·9	8·3
Rock Wool Batts (all sizes)	Million Square Feet	—[3]	—[3]	—[3]	7·8[4]	5·8[4]	0·1[4]
Gypsum Hardwall Plaster	Thousand Tons	1·0	1·4	0·7	7·6	10·1	10·0
Cast Iron Radiators	Thousand Square Feet	—[3]	—[3]	—[3]	7·6	43·8	0
Wire Nails and Spikes	Thousand Kegs	25·4	0·6	37·1	13·6	82·9	126·3
Common, Colourless Window Glass	Million Square Feet	—[5]	0·1[5]	0·1[5]	43·7	70·2	96·4
Paints, Varnishes and Lacquers	Million Dollars	4·4	7·3	6·0	9·4	13·4	14·3
Rigid Insulating Boards	Million Square Feet[6]	36·2	51·1	40·1	18·7	39·9	18·3

(1) Comparable data are available for only nine of the 30 building materials reviewed.
(2) Preliminary.
(3) No exports reported.
(4) Imports reported in pounds, have been converted to square feet on a 3 inch basis, assuming imports were all batt wool.
(5) Glass of foreign origin only—the 1946 exports totalled only 4,300 square feet which is too small to show.
(6) ½" Basis.

TABLE 9.—DOMESTIC SUPPLY AND DOMESTIC DISAPPEARANCE OF SELECTED BUILDING MATERIALS, CANADA, 1946, 1947 AND 1948

Material	Unit	Domestic Supply[1]			Domestic Disappearance[2]		
		1946	1947	1948[3]	1946	1947	1948[3]
Cement	Million Barrels	10·9	13·4	15·1	11·8	13·1	15·2
Building Brick (Clay and Sand-Lime)	Million Bricks	300·7	339·1	349·0	300·9	335·0	350·1
Rock Wool Batts (all sizes)	Million Square Feet	62·7	88·5	93·6	62·4	88·3	93·6
Gypsum Hardwall Plaster	Thousand Tons	103·9	128·3	152·2	103·9	128·3	151·8
Cast Iron Radiators	Million Square Feet	7·9	9·0	8·6	7·5	8·9	8·6
Wire Nails and Spikes	Million Kegs	1·7	1·6	1·8	—[4]	—[4]	—[4]
Common, Colourless Window Glass	Million Square Feet	43·7	70·1	96·3	—[4]	—[4]	—[4]
Paints, Varnishes and Lacquers	Million Dollars	61·8	77·0	90·6	—[4]	—[4]	—[4]
Rigid Insulating Boards	Million Square Feet[5]	144·3	191·9	198·9	—[4]	—[4]	—[4]

(1) Production plus imports minus exports.
(2) Production plus imports plus net changes in stocks between the beginning and end of the year minus exports.
(3) Preliminary.
(4) Not available.
(5) ½" Basis.

TABLE 10.—STOCKS AND STOCKS-TO-SALES RATIOS OF SELECTED BUILDING MATERIALS, CANADA, DECEMBER, 1946, 1947 AND 1948

Material [1]	Stocks at December 31				Ratio of Stocks at Dec. 31 to December Sales		
	Unit	1946	1947	1948[2]	1946	1947	1948[2]
CEMENT AND CEMENT PRODUCTS—							
Cement	Million Barrels	0·5	0·7	0·6	0·88	1·16	0·81
Concrete Brick and Building Blocks	Million Pieces	1·2	2·2[3]	2·7	0·57	0·68[3]	0·58
Cement Pipe and Tile[4]	Thousand Tons	12·2	10·4	12·9	2·19	1·17	1·66
CLAY PRODUCTS—							
Building Brick (incl. Sand-Lime Brick)	Million Bricks	18·9[3]	23·0[3]	21·5	0·80[3]	0·87[3]	0·72
Vitrified Flue Linings	Thousand Linear Feet	23·8	27·7	16·5	0·34	0·29	0·19
Vitrified Sewer Pipe	Thousand Linea Feet	80·7	53·7	35·9	0·31	0·15	0·20
Structural Tile	Thousand Tons	8·5	7·4	8·1	0·90	0·63	0·53
ROCK WOOL PRODUCTS—							
Rock Wool Batts (all sizes)	Million Square Feet	0·4	0·6	0·6	0·06	0·08	0·05
Bulk Rock Wool (granulated and loose)	Million Cubic Feet	0·1	0·1	0·3	0·13	0·12	0·21
GYPSUM PRODUCTS—							
Gypsum Wallboard	Million Square Feet	1·8	1·2	1·6	0·11	0·06	0·08
Gypsum Lath	Million Square Feet	0·7	0·6	0·5	0·09	0·06	0·04
Gypsum Hardwall Plaster	Thousand Tons	0·6	0·5	0·9	0·05	0·05	0·08
PLUMBING SUPPLIES—							
Cast Iron Soil Pipe and Fittings	Thousand Tons	1·3	1·6	2·9	0·62	0·56	0·68
Cast Iron Water Pipe and Fittings	Thousand Tons	—[5]	2·3	4·7	—[5]	0·71	0·65
Steel Pipe and Fittings	Thousand Tons	17·2	6·7	8·9	3·63	0·77	0·75
ENAMELLED SANITARY WARE—							
Bath Tubs	Thousand Tubs	1·0	1·5	0·6	0·17	0·20	0·07
Sinks	Thousand Sinks	3·5	4·8	4·0	0·34	0·42	0·28
Wash Basins	Thousand Basins	3·9	6·8	3·1	0·59	0·84	0·27
HEATING EQUIPMENT—							
Electric Water Heaters	Thousand Heaters	0·8	3·9	12·1	0·27	1·18	1·79
Hot Water Storage Tanks (Range Boilers)	Thousand Tanks	0·1	0·3	0·2	0·01	0·02	0·02
Cast Iron Radiators	Million Square Feet	0·4	0·5	0·6	0·60	0·71	0·74
OTHER PRODUCTS							
Non-Metallic Sheathed Cable	Million Linear Feet	1·0	0·8	0·8	0·24	0·02	0·09

(1) No information available for roofing products, furnaces, wire nails, builders' hardware, glass, paints and rigid boards.
(2) Preliminary.
(3) Estimated (for coverage see Appendix).
(4) Estimates for drain, sewer and water pipe and culvert tile.
(5) Not available.

APPENDIX—SOURCES AND EXPLANATORY NOTES

The statistics used in this report are based on data collected by the Dominion Bureau of Statistics except where stated otherwise in the notes that follow.

Production intentions for 1949 are based on surveys of the expected output of nearly all of the companies which produce the building materials covered in this report. The questionnaires were distributed by the Dominion Bureau of Statistics and estimates of 1949 output were prepared by the Economic Research and Development Branch, Department of Trade and Commerce, for all but a few items. These estimates were then reviewed by the appropriate agencies of the Department. Special inquiries were made by the Co-Ordinator of Building Materials, Department of Trade and Commerce, in those cases where the production intentions indicated by the survey were considered insufficient to meet the anticipated requirements. Assistance was given to companies facing bottlenecks so that they could attain higher production targets than indicated in their year-end plans. Production intentions for 1949 as published here take account of these changes and represent final intentions as they existed at the beginning of 1949.

In making use of the statistics in this report the following points should be kept in mind:

All 1948 figures are preliminary;

Stocks and sales figures are as reported by the manufacturers only and do not include inventories or sales at the wholesale or retail levels;

While the production intentions shown for 1949 represent the best available information at the time of publication, many factors may interfere with these production plans during 1949, e.g., prolonged management-labour disputes, delays in the procurement of machinery, equipment, materials and parts, and an inadequate supply of skilled labour.

Sources and explanatory notes for the materials covered in this report are given below.

Lumber as used here refers to sawn lumber only. The 1947 and 1948 production figures and the productions intentions for 1949 are all estimates supplied by the Timber Controller, Department of Trade and Commerce.

Pig Iron covers basic, malleable and foundry iron. The estimate of the production intentions for 1949 was prepared by the Steel Controller, Department of Trade and Commerce.

Cement refers to the Portland type only. The unit of measure used is the barrel of 350 pounds. Sales are shipments reported by the producers plus the quantities used at the plants.

Concrete Brick and Building Blocks comprise concrete brick, concrete solid blocks, concrete hollow blocks and concrete cinder blocks. No information on a unit basis is available prior to 1946. The figures shown for production, stocks, etc. are estimated from data supplied by the majority of producing firms in the field.

Cement Pipe and Tile means cement drain pipe, sewer pipe, water pipe and culvert tile. No information on a unit basis is available prior to 1946.

Building Brick comprises face and common clay brick and sand-lime brick. All figures used are estimates based on data supplied by the majority of the producers. Imports have been converted from tons to thousands of bricks to assure comparability with other data.

Vitrified Flue Linings and Vitrified Clay Sewer Pipe. Data on a unit basis are not available for these products prior to 1946.

Rock Wool Batt figures are for 1 inch, 2 inch, 3 inch and 4 inch batts. Imports which are classified as "mineral wool, n.o.p." are reported in pounds and these figures have been converted to square feet, 3 inch basis, on the assumption that they were batt wool.

Bulk Rock Wool consists of granulated rock wool and bulk or loose rock wool.

Gypsum Lath. No data are available prior to 1945.

Gypsum Hardwall Plaster. Exports and imports are classified as "plaster of paris wall plaster".

Asphalt Shingles comprise asphalt shingles of all weights and asphalt siding produced on shingle machines.

Steel Pipe and Fittings. This group consists of butt-weld and lap-weld steel pipe, steel pipe fittings and seamless steel tubing. The latter type has been added to this classification because of its increased use in building as a substitute for butt-weld pipe.

Bath Tubs. Production figures prior to 1946 are estimated from reports made to the Dominion Bureau of Statistics by firms accounting for about three-quarters of the 1947 and 1948 output.

Sinks comprise flat and roll rim sinks, sink and drain board combinations and sink and tray combinations. Statistics on a unit basis are not available prior to 1946.

Wash Basins. No data are available prior to 1946.

Furnaces. This classification consists of warm-air furnaces and cast iron sectional hot water or steam domestic heating boilers. Production intentions for warm air furnaces were supplied by the Co-ordinator of Building Materials, Department of Trade and Commerce, while the estimate for heating boilers is based on a survey of the producers.

Electric Water Heaters. This group comprises electric water heaters of the circulating, immersion, wrap-around and storage-tank types.

Hot Water Storage Tanks. This classification covers galvanized, copper, Everdur and Monel storage tanks and range boilers.

Wire Nails and Spikes. The unit of measure used is the keg of 100 pounds.

Builders' Hardware. Figures shown as production for 1947 and 1948 are estimated from reports made to the Dominion Bureau of Statistics by firms which accounted for approximately two-thirds of the 1946 output.

Common, Colourless Window Glass. Production figures of the sole Canadian producer are not available for publication. The estimate of the 1949

imports was supplied by the Import Division, Department of Trade and Commerce. The export figures shown are for glass of foreign origin only.

Paints, Varnishes and Lacquers. Figures shown as production for 1948 are factory sales while those of the previous years represent selling value of production at the works. Export and import figures cover paints, pigments and varnishes.

Non-Metallic Sheathed Cable. This classification consists of the 12/2 and the 14/2 type of non-metallic sheathed cable. No statistics on a unit basis are available prior to 1946.

Rigid Insulating Boards. This group consists of panel boards, plaster-base boards, roof boards and other building boards made from pulp or fibre. Exports are classified as "pulp and fibre wallboards" while imports are shown as "wallboard building board". Both exports and imports are reported in pounds and these figures have been converted to square feet, $\frac{1}{2}''$ basis, to assure comparability with production data.